IN THE CLAIMS:

Please amend the claims as follows.

Claim 1 (Currently Amended): A curved surface shape inspection method, wherein

[[in]] a fiber optic block, formed by bundling and integrating a plurality of optical fibers each composed of a core region and a clad region surrounding the core region, and comprising an at least partially curved convex input end face composed of one end of each optical fiber and an output end face that is positioned on the opposite side to the input end face, is prepared for a to-be-measured object including a measurement surface having a curved concave surface shape;

the input end face of the fiber optic block and the [[a]] measurement surface ~~having a curved surface shape~~ of the [[a]] to-be-measured object are pressed against each other, and

an optical image formed by bringing the input end face into contact with the measurement surface and output from the [[an]] output end face of the fiber optic block ~~that is positioned on the opposite side to the input end face~~ is used to inspect the curved concave surface shape of the measurement surface of the to-be-measured object.

Claim 2 (Currently Amended): The curved surface shape inspection method according to claim 1, wherein

the measurement surface of the to-be-measured object is an inner surface of a groove included in the to-be-measured object, and

the optical image output from the output end face of the fiber optic block includes two contact portion images corresponding to the two respective contact portions of the input end face and the measurement surface, and wherein

the distance between the two contact portion images is measured to inspect the curved concave surface shape of the measurement surface of the to-be-measured object.

Claim 3 (Original): The curved surface shape inspection method according to claim 1, wherein imaging means is used to take the optical image.

Claim 4 (Original): The curved surface shape inspection method according to claim 1, wherein the fiber optic block has a predetermined region including the output end face in which a light absorber for absorbing light is provided in such a manner as to surround the clad region in each optical fiber.

Claim 5 (Original): The curved surface shape inspection method according to claim 4, wherein the difference in refractive index between the core region and the clad region in each optical fiber is smaller in the predetermined region than at the input end face.

Claim 6 (Original): The curved surface shape inspection method according to claim 1, wherein the input end face and the measurement surface are pressed against each other across a film with translucency, and the optical image output from the output end face is used to inspect the curved surface shape of the to-be-measured object.

Claim 7 (Original): The curved surface shape inspection method according to claim 1, wherein an inspection pattern provided on the output end face is compared with the optical image to inspect the curved surface shape of the to-be-measured object.

Claim 8 (Original): The curved surface shape inspection method according to claim 1, wherein luminescent liquid for producing luminescence is applied to the measurement surface and the measurement surface with the luminescent liquid applied thereto and the input end face are pressed against each other, and the optical image output from the output end face is used to inspect the curved surface shape of the to-be-measured object.

Claim 9 (Original): The curved surface shape inspection method according to claim 1, wherein scattering liquid including scatterers is applied to the measurement surface and the measurement surface with the scattering liquid applied thereto and the input end face are pressed against each other, and the optical image output from the output end face is used to inspect the curved surface shape of the to-be-measured object.

Claim 10 (Original): The curved surface shape inspection method according to claim 1, wherein the position of at least one of the fiber optic block and the to-be-measured object is adjusted so that the optical image is positioned within a predetermined range of a positioning pattern provided on the output end face.

Claim 11 (Currently Amended): A fiber optic block adapted to be applied to an inspection of the curved concave surface shape of a measurement surface of a to-be-measured object and formed by bundling and integrating a plurality of optical fibers each composed of a core region and a clad region surrounding the core region,

the fiber optic block comprising:

an at least partially curved convex input end face composed of one end of each optical fiber, which is brought into contact with the measurement surface of the to-be-measured object when the inspection is carried out; and

an output end face positioned on the opposite side to the input end face and adapted to output an optical image to be formed by light entering the input end face.

Claim 12 (Original): The fiber optic block according to claim 11, wherein the input end face has a semispherical shape.

Claim 13 (Original): The fiber optic block according to claim 11, further having a predetermined region including the output end face in which a light absorber for absorbing light is provided in such a manner as to surround the clad region in each optical fiber.

Claim 14 (Original): The fiber optic block according to claim 13, wherein the difference in refractive index between the core region and the clad region in each optical fiber is smaller in the predetermined region than at the input end face.

Claim 15 (Original): The fiber optic block according to claim 11, wherein an inspection pattern for inspecting the curved surface shape of the to-be-measured object is provided on the output end face.

Claim 16 (Original): The fiber optic block according to claim 11, wherein a positioning pattern for adjusting the position with respect to the to-be-measured object is provided on the output end face.

Claim 17 (Original): The fiber optic block according to claim 11, wherein the plurality of optical fibers are bundled into a hollow shape.

Claim 18 (Currently amended): A curved surface shape inspection apparatus for inspecting the curved concave surface shape of a measurement surface of a to-be-measured object, comprising:

a fiber optic block according to claim 11; and

imaging means provided in such a manner as to face the output end face of the fiber optic block and adapted to take an optical image output from the output end face.

Claim 19 (Original): The curved surface shape inspection apparatus according to claim 18, further comprising illuminating means provided in such a manner as to face the input end face and adapted to illuminate the input end face.

Claim 20 (Original): The curved surface shape inspection apparatus according to claim 18, further comprising a lens system arranged between the output end face and the imaging means and adapted to input the optical image to the imaging means.